

Notice of Allowability

Application No.

10/714,789

Examiner

Khai M Nguyen

Applicant(s)

SWIFT ET AL.

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/17/2003.
2. ☒ The allowed claim(s) is/are 1-27.
3. ☒ The drawings filed on 17 November 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 5/7/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it Must be submitted no later than the payment of issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Grodon, Davis (29996) on 5/10/2005.

Examiner's Amendment

2. The application has been amended as follows:

In the claims:

Line 1 of claim 4, "claim 2" is amended to read " claim 3"

This examiner's amendment was necessary to correct the dependence of claim 4.

End of examiner's amendment.

Information Disclosure Statement

3. The references listed in the Information Disclosure Statement filed on May 7, 2004 have been considered by the examiner (see attached PTO-1449 form or PTO/SB/08A and 08B forms).

Allowable Subject Matter

4. Claims 1-27 are allowed.

Regarding claim 1: The following is an examiner's statement of reasons for allowance: Prior art teaches a method for characterizing interference in a cellular wireless network. However, the prior art fails to teaches an sampling composite signals received at a plurality of ground-level locations that are within the intended coverage zone of the cellular wireless network, and recording the received composite signals as a first set of composite signals; correlating each composite signal within said first set of composite signals with a predetermined waveform signal to identify a first set of correlation peaks therein; generating data representing relative power level and time-of-arrival for each correlation peak within said first set of correlation peaks, and adding said data to a database; sampling composite signals received at a plurality of above-ground-level locations that are within the intended coverage zone of the cellular wireless network, and recording the received composite signals as a second set of composite signals; correlating each composite signal within said second set of composite signals with said predetermined waveform signal to identify a second set of correlation peaks therein; and generating data representing relative power level and time-of-arrival for each correlation peak within said second set of correlation peaks, and adding said data to a database; wherein time of arrival for each correlation peak within said first set of correlation peaks and time of arrival for each correlation peak within said second set of correlation peaks are derived from a plurality of synchronous time reference signals.

Regarding claim 14: The following is an examiner's statement of reasons for allowance: Prior art teaches a system for characterizing interference in a cellular

wireless network. However, the prior art fails to teaches an data analysis processor that operates on a first set of composite signals and on a second set of composite signals, the first set of composite signals measured from a plurality of ground-level locations that are within the intended coverage zone of the cellular wireless network, and the second set of composite signals measured from a plurality of above-ground-level locations that are within the intended coverage zone of the cellular wireless network, the data analysis processor including means for correlating each composite signal within said first set of composite signals with a predetermined waveform signal to identify a first set of correlation peaks therein, means for generating data representing relative power level and time-of-arrival for each correlation peak within said first set of correlation peaks, and adding said data to a database, means for correlating each composite signal within said second set of composite signals with said predetermined waveform signal to identify a second set of correlation peaks therein, and means for generating data representing relative power level and time-of-arrival for each correlation peak within said second set of correlation peaks, and adding said data to a database, wherein time of arrival for each correlation peak within said first set of correlation peaks and time of arrival for each correlation peak within said second set of correlation peaks are derived from a plurality of synchronous time reference signals.

Any comments considered by applicant must be submitted on later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Citation of Pertinent Prior Art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tillotson (U.S.Pub-20030186712) discloses Method and apparatus for avoiding self-interference in a mobile network.

Otten (U.S.Pat-5511233) disclosure System and method for mobile communications in coexistence with established communications systems.

Dixon (U.S.Pat-5850600) discloses Three cell wireless communication system.

Bonta et al. (U.S.Pat-6097957) discloses Radiotelephone service planning system and method for determining a best server for a communication connection.

Clarkson et al. (U.S.Pat-6631267) discloses Road-based evaluation and interpolation of wireless network parameters.

Craig et al. (U.S.Pat-6671309) discloses Interference diversity in communications networks.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai M Nguyen whose telephone number is 571.272.7923. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571.272.7922. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Khai Nguyen
Au: 2687

5/8/2005


SONNY TRINH
PRIMARY EXAMINER